

WHAT IS CLAIMED IS:

1. A compound characterized by having a unit formed from a polysulfide diol and an  
5 organic dibasic carboxylic acid or its anhydride, wherein the hydroxyl groups are separated  
from said polysulfide by at least 2 carbon atoms, having a total of at least about 5 carbon atoms,  
said polysulfide having from 2 to 8 sulfur atoms.

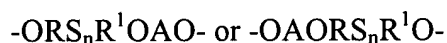
2. A compound according to claim 1, wherein said dibasic acid is an organic dicarboxylic  
10 acid or anhydride of at least about 2 carbon atoms and said polysulfide diol is aliphatic of from  
4 to 40 carbon atoms.

3. A compound according to claim 2, wherein said polysulfide has from 2 to 4 sulfur  
atoms.

4. A compound according to claim 1, wherein said compound is a condensation copolymer.

5. A compound according to claim 1, wherein said compound is an addition polymer.

6. A compound having at least one unit of the formula:



wherein:

O and S have their normal meaning of oxygen and sulfur;

n is at least 2 and not more than about 8;

R and R<sup>1</sup> are the same or different and are organic divalent radicals, each having  
from 2 to 20 carbon atoms; and

A is the residue of a dibasic carboxylic acid of from 1 to 40 carbon atoms.

7. A composition of the formulae:

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(a)  $MF_mRS_nR^1OM^1$ ; or

(b)  $MZAORS_nR^1F'_mAZ^1M^1$ ,

10 wherein

O and S have their normal meaning of oxygen and sulfur;

n is at least 2 and not more than about 8;

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F is of the formula  $-ORS_nR^1OAO-$ ;

F' is of the formula  $-OAORS_nR^1O-$

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m is at least 1;

Z and Z<sup>1</sup> are the same or different and are oxy or amino;

M and M<sup>1</sup> are the same or different and are hydrogen or an organic substituent;

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R and R<sup>1</sup> are the same or different and are organic divalent radicals, each having from 2 to 20 carbon atoms; and

A is the residue of a dicarboxylic acid of from 2 to 40 carbon atoms.

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8. A composition according to claim 7, wherein M and M<sup>1</sup> are hydrogen and A is of from 2 to 12 carbon atoms and R and R<sup>1</sup> are aliphatic.

9. A composition according to claim 7, wherein A is a fatty acid dimer residue and R and R<sup>1</sup> are aliphatic.

10. A composition according to claim 7, wherein:

M is defined as W<sup>1</sup>R<sup>2</sup>-; and

M<sup>1</sup> is defined as W<sup>2</sup>R<sup>3</sup>-;

wherein:

R<sup>2</sup> and R<sup>3</sup> are the same or different and are an organic divalent radical having from 2 to 12 carbon atoms; and

W and W<sup>1</sup> are the same or different, and are amino and substituted amino of from about 1 to 6 carbon atoms, hydroxyl, carboxyl, isothiocyanate, isocyanate, oxo-carbonyl, non-oxo-carbonyl, siloxane, silane, cyclocarbonate, active olefin, or active halogen.

11. A copolymer comprising as a monomer a composition according to claim 7 wherein:

said organic substituent for M is defined as W<sup>1</sup>R<sup>2</sup>- and for M<sup>1</sup> as W<sup>2</sup>R<sup>3</sup>-;

R<sup>2</sup> and R<sup>3</sup> are the same or different and are an organic divalent radical having from 2 to 12 carbon atoms; and

W and W<sup>1</sup> are the same or different, and are amino and substituted amino of from about 1 to 6 carbon atoms, hydroxyl, carboxyl, isothiocyanate, isocyanate, oxo-carbonyl, non-oxo-carbonyl, siloxane, silane, cyclocarbonate, active olefin, or active halogen.

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12. A compound according to claim 11, wherein said polymer is a polyurethane.

13. A compound according to claim 11, wherein said polymer is a polyether.

10 14. A compound according to claim 11, wherein said polymer is a polyester.

15. A compound according to claim 11, wherein said polymer is an addition polymer.

15 16. A copolymer according to claim 11, wherein A is a dicarboxylic acid residue of from 2 to 8 carbon atoms and n is 2 to 4.

17. A compound according to claim 15, wherein at least one of W and W<sup>1</sup> is hydroxyl.

20 18. A compound according to claim 15, wherein at least one of W and W<sup>1</sup> is carboxyl.

19. A compound according to claim 15, wherein at least one of W and W<sup>1</sup> is an amine.

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20. A compound of the formulae:

(a)  $MF_mRS_nR^1OM^1$ ; or

30 (b)  $MF_m^lAOM^1$ ,

wherein:

$F$  is of the formula  $-ORS_nR^1OAO-$ ;

5  $F'$  is of the formula  $-OAORS_nR^1O-$ ;

$m$  is at least 1;

$n$  is of 2 to 4;

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$R$  and  $R^1$  are ethylene;

$A$  is the residue of an aliphatic dicarboxylic acid of from 2 to 40 carbon atoms;

and

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$M$  and  $M^1$  are H.

21. A composition resulting from the reaction of the reactants

di(hydroxyethyl)disulfide, succinic or adipic acid and dimethylolpropionic acid and an

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acid catalyst.

22. An object of a polymer comprising a compound according to claim 1.